TECHNICAL REVIEW DOCUMENT
For
RENEWAL TO OPERATING PERMIT 01OPMR236

Manchief Power Company, LLC – Manchief Generating Station
Morgan County
Source ID 0870011

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Revised July and August 2008

I. Purpose:

This document will establish the basis for decisions made regarding the applicable requirements, emission factors, monitoring plan and compliance status of emission units covered by the renewed operating permit proposed for this site. The current Operating Permit was issued January 1, 2004 and expires on January 1, 2009. This document is designed for reference during the review of the proposed permit by the EPA, the public, and other interested parties. The conclusions made in this report are based on information provided in the renewal application submitted March 6, 2008, additional information submitted on June 23, 2008, comments on the draft permit received on July 28, 2008 via e-mail, previous inspection reports and various e-mail correspondence, as well as telephone conversations with the applicant. Please note that copies of the Technical Review Document for the original permit and any Technical Review Documents associated with subsequent modifications of the original Operating Permit may be found in the Division files as well as on the Division website at http://www.cdphe.state.co.us/ap/Titlev.html. This narrative is intended only as an adjunct for the reviewer and has no legal standing.

Any revisions made to the underlying construction permits associated with this facility made in conjunction with the processing of this operating permit application have been reviewed in accordance with the requirements of Regulation No. 3, Part B, Construction Permits, and have been found to meet all applicable substantive and procedural requirements. This operating permit incorporates and shall be considered to be a combined construction/operating permit for any such revision, and the permittee shall be allowed to operate under the revised conditions upon issuance of this operating permit without applying for a revision to this permit or for an additional or revised construction permit.

II. Description of Source

The Manchief Generating Station consists of two natural gas-fired simple cycle combustion turbines used to generate electric power and is defined under Standard Industrial Classification 4911. Each turbine is rated at a heat input of 1,279 mmBtu/hr and drives a generator rated at 142 MW at 32º F. Each turbine is equipped with an advanced dry low NO_X (DLN) combustion system to minimize NO_X emissions.

Commercial operation of the units commenced in July 2000. In addition to the combustion turbines this facility also has a diesel fired internal combustion engine that drives a 3 MW generator. The generator is used to partially offset the load required by the electric startup motor of the first combustion turbine when neither combustion turbine/generator is on-line and also to supply emergency power in the event of a planned or unplanned event in which normal power is unavailable. In addition, a natural gas-fired indirect water bath heater is used to pre-heat the natural gas delivered to the turbines.

The Manchief Generating Station is co-located with Public Service Company's (PSCo's) Pawnee Generating Station. Since the two facilities are located on contiguous and adjacent property, belong to the same industrial grouping (first two digits of the SIC code are the same) and are under common control (via a power purchase agreement with PSCo), they are considered a single stationary source for purposes of major stationary source new source review and Title V operating permit applicability. A separate Title V operating permit was issued for PSCo's Pawnee Station (96OPMR129). In addition, Boral Material Technologies, Inc. (BMTI) conducts ash conditioning, handling and blending operations at Pawnee station. BMTI is considered a support facility for PSCo's Pawnee Station and as such is considered a single source with PSCo's Pawnee Station and subsequently BMTI is also considered a single source with Manchief Generating Station. A separate Title V permit was issued for BMTI Pawnee Station (03OPMR244).

The facility is located at 14936 County Road 24, approximately 4.2 miles south of Brush in Morgan County. The area in which the plant operates is designated as attainment for all criteria pollutants. There are no affected states within 50 miles of the plant and there are no Federal Class I designated areas within 100 kilometers of the plant.

The summary of emissions that was presented in the Technical Review Document (TRD) for the original permit issuance has been modified to more appropriately identify the **potential to emit (PTE)** of both criteria and hazardous air pollutants. Emissions (in tons/yr) at the facility are as follows:

Emission Unit	PM	PM_{10}	SO_2	NO_X	CO	VOC	HAPS
PSCo – Pawnee Station (96OPMR129)							
Main Boiler (Unit 1)	2,341.5	2,154.2	28,098.6	10,771.1	725	87	See Page 13
Aux. Boiler	1.1	1.1	25.9	35.4	29.7	1.9	
Coal Handling (fugitives)	35.84	8.7					
Coal Handling (point sources)	15.3	6.8					
Ash Handling (fugitives)	19.66	7.08					
Haul Roads (fugitive emissions)	47.9	12.2					
Ash Silo	2.13	2.13					

Emission Unit	PM	PM_{10}	SO_2	NO_X	CO	VOC	HAPS
Soda Ash	0.007	0.007					See Page 13
Cooling Tower	36.5	36.5				2.6	
PSCo Total Emissions	**2,499.9**	**2,228.7**	**28,124.5**	**10,806.5**	**754.7**	**91.5**	**78.0**
BMTI – Pawnee Station (03OPMR244)							
Fly Ash Conditioning System/MACS Bldg.	4.23	2.69					Negl.
Fugitive Emissions	18.7	6.22					Negl.
BMTI Total Emissions	**22.93**	**8.91**					**Negl.**
Manchief Generating Station (01OPMR236)							
Turbine 1	66.2	48.6	3.5	396.7	153.7	21.9	See Page 13
Turbine 2	66.2	48.6	3.5	396.7	153.7	21.9	
Diesel Generator	0.3	0.3	1.0	15.4	4.2	0.4	
Water Bath Heater	0.3	0.3	0.02	3.9	3.3	0.2	
Manchief Total Emissions	**133.0**	**97.8**	**8.02**	**812.7**	**314.9**	**44.4**	**11.79**
Facility Total Emissions	**2,655.83**	**2,335.41**	**28,132.52**	**11,619.2**	**1,069.6**	**135.9**	**89.70**

Potential to emit used in the above table are based on the following information:

Criteria Pollutants

PSCo – Pawnee: Potential to emit for all emission units except the main boiler are based on permitted emission limitations. Potential to emit for NO_X, SO_2 and PM from the main boiler are based on regulatory limits (Reg 1 for SO_2 and PM (1.2 lb/mmBtu and 0.1 lb/mmBtu, respectively) and Acid Rain for NO_X (0.46 lb/mmBtu)), the design heat input rate and 8760 hours per year of operation. PM_{10} emissions from the main boiler are presumed to be 92% of PM emissions (per AP-42, Section 1.1 (dated /98), Table 1.1-6. VOC and CO emissions from the main boiler are based on AP-42 emission factors (Section 1.1, dated 9/98, Tables 1.1-3 and 1.1-19) and the permitted coal consumption limit. Note that for the auxiliary boiler, permitted emission limitations were not included in the permit for PM, PM_{10} and VOC, the potential to emit for those pollutants are based on the requested emissions from the APEN submitted June 28, 2002 (noted in the technical review document prepared for the original Title V permit for PSCo Pawnee Station).

BMTI – Pawnee: Potential to emit is based on permitted emission limitations.

Manchief: Potential to emit for the turbines, heater and starter engine are based on permitted emission limitations. Note that for the heater and starter engine, permitted

emission limitations were not included in the permit for certain criteria pollutants (PM, PM_{10}, CO (engine only), SO_2 and VOC) because emissions were below the APEN reportable level. Emissions for those pollutants are shown in the above table and emissions are based on the permitted fuel consumption limit and AP-42 emission factors.

Hazardous Air Pollutants (HAP)

The potential to emit table beginning on page 2 provides total HAPs for each operating permit. The breakdown of HAP emissions by individual HAP and emission units is provided on page 13 of this document. HAP emissions, as shown in the table on page 13, are based on the following information:

PSCO – Pawnee: Potential to emit of HAPS were only determined for the main boiler, the auxiliary boiler and the cooling water tower. HAPS were not estimated for the other emission units as HAPs were presumed to be negligible from these sources. HAP emissions from the auxiliary boiler are based on AP-42 emission factors and permitted fuel consumption limits. Note that the combined fuel limits for natural gas and No. 2 fuel oil allow for more than 8760 hours of operation; therefore, in the calculations emissions are based on No. 2 fuel use that is lower than the permitted consumption limit. HAPS from the cooling water tower are based on permitted VOC emissions (all VOC is assumed to be chloroform). Metal HAP emissions from the main boiler are based on AP-42 emission factors and permitted fuel consumption, with a control efficiency of 99.5 % assumed for the baghouse. Mercury emissions from the main boiler are based on the average projected mercury emissions for this unit that was used in the development of Colorado's Mercury Rule. HF and HCl emission from the main boiler were based on an emission factor in units of lbs/ton determined from reported HF and HCl emissions and coal consumption on several current APENS (2007, 2006 and 2004 data) and permitted coal consumption limit.

BMTI – Pawnee: HAPS are presumed to be negligible for the BMTI emission units.

Manchief: Potential to emit of HAPS is based on permitted fuel consumption and AP-42 emission factors for the turbines, starter engine and heater.

Actual emissions are generally less much less than potential emissions. Actual emissions (in tons/yr) are shown in the table below.

Emission Unit	PM	PM_{10}	SO_2	NO_X	CO	VOC	HAPS
PSCo – Pawnee Station (96OPMR129)							
Main Boiler (Unit 1)	132.6	122	14,126.5	4,415.2	598.5	71.2	61.36
Aux. Boiler	0.003	0.003	0.0008	0.14	0.12	0.008	
Coal Handling (fugitives)	13.9	4.6					
Coal Handling (point sources)	3.4	1.2					

Emission Unit	PM	PM_{10}	SO_2	NO_X	CO	VOC	HAPS
Ash Handling (fugitives)	6.6	2.4					
Ash Handling (point source - silo)	1.2	1.2					
Haul Roads (fugitive emissions)	33.3	8.5					
Soda Ash	0.005	0.005					
Cooling Tower	22.5	22.5				2.5	0.12
PSCo Total Emissions	**213.51**	**153.91**	**14,126.5**	**4,415.34**	**598.62**	**73.71**	**61.48**
BMTI – Pawnee Station (03OPMR244)							
Fly Ash Conditioning System/MACS Bldg.	4.23	2.69					
Fugitive Emissions	18.7	6.22					
BMTI Total Emissions	**22.93**	**8.91**					**Negl.**
Manchief Generating Station (01OPMR236)							
Turbine 1	0.87	0.64	0.13	13.49	6.01	0.27	
Turbine 2	0.44	0.33	0.07	9.23	4.66	0.14	
Diesel Generator	0.3	0.3	1.0	15.4	4.2	0.4	
Water Bath Heater	0.3	0.3	0.02	3.9	3.3	0.2	
Manchief Total Emissions	**1.91**	**1.57**	**1.22**	**42.02**	**18.17**	**1.01**	**None reported.**
Facility Total Emissions	**238.35**	**164.39**	**14,127.72**	**4,457.36**	**616.79**	**74.72**	**61.48**

*permitted emissions for the turbine(s), duct burner(s) and starter engine(s) is a combined limit.
**permitted emissions for the turbines and duct burners is a combined limit.

Actual emissions are from the following sources:

PSCO – Pawnee: Actual emissions are based on APENS submitted on April 30, 2008 (2007 data) for the main boiler, coal handling and the soda ash silo, April 9, 2007 (2006 data) for the auxiliary boiler, cooling water tower and roads and April 19, 2005 (2004 data) for ash handling. Note that reportable HAPS for the main boiler were hydrochloric acid (HCl), hydrofluoric acid (HF), manganese and nickel and reportable HAPS for the cooling tower were chloroform.

BMTI – Pawnee: Actual emissions were not reported on the last APEN submitted in November 2002; therefore, potential to emit is shown.

Manchief: Actual emissions for the turbines are based on the APEN received on March 15, 2005 (based on 2004 data). No HAPs were reported on that APEN. APENs have not been submitted for the heater or generator since late March, early April 2000; therefore, potential to emit is shown.

Compliance Assurance Monitoring (CAM) Requirements

CAM applies to any emission unit that is subject to an emission limitation, uses a control device to achieve compliance with that emission limitation and has potential pre-control emissions greater than major source levels. NO_X emissions from the turbines are controlled by DLN combustion systems. DLN combustion systems are not considered control devices as defined in 40 CFR Part 64 § 64.1, as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV, since DLN combustion systems are considered inherent process equipment. Therefore CAM does not apply to the combustion turbines.

The other emission units addressed by this permit (the diesel generator and the water bath heater) are also not equipped with control devices and therefore CAM does not apply to these units.

MACT Requirements

Case-by-Case MACT - 112(j) (40 CFR Part 63 Subpart B §§ 63.50 thru 63.56)

Under the federal Clean Air Act (the Act), EPA is charged with promulgating maximum achievable control technology (MACT) standards for major sources of hazardous air pollutants (HAPs) in various source categories by certain dates. Section 112(j) of the Act requires that permitting authorities develop a case-by-case MACT for any major sources of HAPs in source categories for which EPA failed to promulgate a MACT standard by May 15, 2002. These provisions are commonly referred to as the "MACT hammer".

Owners or operators that could reasonably determine that they are a major source of HAPs which includes one or more stationary sources included in the source category or subcategory for which the EPA failed to promulgate a MACT standard by the section 112(j) deadline were required to submit a Part 1 application to revise the operating permit by May 15, 2002. As discussed in the technical review document prepared for the original Title V permit, the source did not indicate whether the facility was a major source for HAPS; however, the Division concluded that the facility was a major source for HAPS. Since the EPA has signed off on final rules for all of the source categories which were not promulgated by the deadline, the case-by-case MACT provisions in 112(j) no longer apply. Note that there is a possible exception to this, as discussed later in this document (see under industrial, commercial and institutional boiler and process heaters).

Combustion Turbine MACT (40 CFR Part 63 Subpart YYYY)

In accordance with 40 CFR Part 63 Subpart YYYY § 63.6090(b)(4), existing (construction commenced prior to January 14, 2003) stationary combustion turbines do not have to meet the requirements of Subparts A and YYYY, including the initial notification requirements.

RICE MACT (40 CFR Part 63 Subpart ZZZZ)

The RICE MACT (40 CFR Part 63 Subpart ZZZZ) was signed as final on February 26, 2004 and was published in the Federal Register on June 15, 2004. An affected source under the RICE MACT is any existing, new or reconstructed stationary RICE with a site-rating of more than 500 hp; however, only existing (commenced construction or reconstruction prior to December 19, 2002) 4-stroke rich burn (4SRB) engines with a site-rating of more than 500 hp were subject to requirements. Existing (commenced construction or reconstruction prior to December 19, 2002) compression ignition (CI) engines, 2-stroke lean burn (2SLB) and 4-stroke lean burn (4SLB) engines were not subject to any requirements in either Subparts A or ZZZZ (40 CFR Part 63 Subpart ZZZZ § 63.6590(b)(3)). The diesel-fired starter engine has a site horsepower of more than 500 hp and commenced construction prior to December 19, 2002; therefore, the RICE MACT requirements do not apply to this engine.

In addition, revisions were made to the RICE MACT to address engines ≤ 500 hp and engines at area sources. These revisions were published in the federal register on January 18, 2008. Under these revisions, existing 4SRB, 2SLB, 4SLB and CI engines are exempt from the requirements. For purposes of the MACT, for engines ≤ 500 hp, existing means commenced construction or reconstruction before June 12, 2006. There is an engine addressed in the insignificant activity list (emergency fire water pump); however, this engine commenced construction prior to June 12, 2006 and as a result the requirements in the RICE MACT do not apply.

Industrial, Commercial and Institutional Boilers and Process Heaters MACT (40 CFR Part 63 Subpart DDDDD)

The final rule for industrial, commercial and institutional boilers and process heaters was signed on February 26, 2004 and was published in the Federal Register on September 13, 2004. The water bath heater included in Section II of the permit falls under this source category. Although 40 CFR Part 63 Subpart DDDDD applies, existing (constructed before January 13, 2003) small gaseous fired units are not subject to any of the requirements in 40 CFR Part 63 Subparts A and DDDDD, including the initial notification requirements (§ 63.7506(c)(3)). The water bath heater falls under the existing small gaseous-fired unit category and would therefore not be subject to any requirements.

As of July 30, 2007, the Boiler MACT was vacated; therefore, the provisions in 40 CFR Part 63 Subpart DDDDD are no longer in effect and enforceable. The vacatur of the Boiler MACT triggers the case-by-case MACT requirements in 112(j), referred to as the MACT hammer, since EPA failed to promulgate requirements for industrial, commercial and institutional boilers and process heaters by the deadline. Under the 112(j) requirements (codified in 40 CFR Part 63 Subpart B §§ 63.50 through 63.56) sources are required to submit a 112(j) application by the specified deadline. As of this date, EPA has not set a deadline for submittal of 112(j) applications to address the vacatur of the Boiler MACT. It is not clear whether 112(j) applications would be required for the

water bath heater that was an affected source under the Boiler MACT but was not subject to any requirements. Therefore, the Division has not included a requirement in the permit to submit a 112(j) application. If the Division considers that in the future, a 112(j) application will be required for small units the source will be notified.

III. Discussion of Modifications Made

Source Requested Modifications

The source's requested modifications identified in the renewal application were addressed as follows:

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In their renewal application, the source indicated a change in the responsible official and the permit contact's title and phone number, as well as the address for the parent company. The changes have been made as requested.

In their July 28, 2008 comments on the draft permit, the source requested the following changes:

Section I, Condition 1.1

The facility description was revised to more appropriately describe the use of the diesel engine.

Section II, Condition 2.2

Based on the source's comments and discussions in a meeting held on August 8, 2008, the permit was revised to specify that for periods when the fuel meter is not functional, that fuel consumption for the engine shall be determined by multiplying hours of operation by the maximum hourly fuel consumption rate of the engine.

Other Modifications

In addition to the source requested modifications, the Division has included changes to make the permit more consistent with recently issued permits, include comments made by EPA on other Operating Permits, as well as correct errors or omissions identified during inspections and/or discrepancies identified during review of this renewal.

The Division has made the following revisions, based on recent internal permit processing decisions and EPA comments to the Manchief Generating Station Renewal Operating Permit. These changes are as follows:

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- Monitoring and compliance periods and report and certification due dates are shown as examples. The appropriate monitoring and compliance periods and report and certification due dates will be filled in after permit issuance and will be based on permit issuance date. Note that the source may request to keep the same monitoring and compliance periods and report and certification due dates as were provided in the original permit. However, it should be noted that with this option, depending on the permit issuance date, the first monitoring period and compliance period may be short (i.e. less than 6 months and less than 1 year).

General

- The Reg 3 citations were revised throughout the permit, as necessary, based on the recent revisions made to Reg 3.

Section I – General Activities and Summary

- Revised the description under Condition 1.1 to address the three separate operating permits issued for the facility.

- Revised the language in Condition 1.4 to include Section V, Conditions 3.g (last paragraph) and 3.d. Note that Section IV, Condition 3.d (affirmative defense provisions for excess emissions during malfunctions) is state-only until approved by EPA in the SIP.

- Made minor revisions to the language in Condition 3.1 to be more consistent with other permits.

- Removed the case-by-case MACT requirements (Condition 6). As discussed previously these requirements no longer apply.

- Added a column to the Table in Condition 7.1 for the startup date of the equipment.

Sections II.1 – Turbines

- Based on EPA's response to a petition on another Title V operating permit, minor language changes were made to various permit conditions (both in the table and the text) to clarify that only natural gas is used as fuel for permit conditions that rely on fuel restriction for the compliance demonstration.

- Removed the language from Condition 1.1.1.2 (CO BACT) that specifies that good combustion practices constitute monitoring and control of several operating parameters and requiring that such parameters be identified, documented, maintained and made available to the Division. Since compliance with the CO BACT emission limitation is monitored with a CEMS, identification and recording of such parameters is not necessary, since compliance is measured directly with the CEMS.

- Revisions were made to the requirements in NSPS Subpart GG (published in the federal register on July 8, 2004. These revisions provided additional monitoring options for NO_X emissions and nitrogen and sulfur content of fuel that have been previously approved by EPA as alternative monitoring. The EPA had approved a custom monitoring schedule for the Manchief units on July 10, 2002. The custom monitoring schedule is consistent with the provisions in the revised NSPS for monitoring the nitrogen and sulfur content of the fuel. Therefore, few changes to the permit are necessary. The revised NSPS requires that monitoring the nitrogen content of the fuel is not necessary for sources that do not take credit for fuel-bound nitrogen in their NO_X emission limitations and that if natural gas is used as fuel, no fuel sampling for sulfur content is required. The only revision that will be made to Section II.1 of the permit will be to revise Condition 1.10 to reference Part 75 Appendix D, Section 2.3.1.4, rather than 2.3.1.4.(a), this is consistent with the language in NSPS GG § 60.334(h)(3)(ii) for demonstrating that the natural gas used as fuel meet the definition of natural gas. Note that other changes will be made to the permit shield for streamlined conditions (Section IV.3) of the permit.

- Removed the last sentence from Condition 1.15. This condition already refers the reader to Section III for Acid Rain provisions and this last sentence is not necessary.

Section II.2 – Starter Engine

- Added language to the note in Condition 2.2 specifying that the "S" in the emission factor is the weight percent sulfur in the fuel.

Section II.3 – Heater

- Based on EPA's response to a petition on another Title V operating permit, minor language changes were made to various permit conditions (both in the table and the text) to clarify that only natural gas is used as fuel for permit conditions that rely on fuel restriction for the compliance demonstration.

- The natural gas consumption limit included in the permit is incorrect. The construction permit included a limit of 77.9 mmSCF/yr and this value was discussed in the technical review document for the original permit, but a limit of 651.7 mmSCF was inadvertently included in the permit.

Section II.4 – Continuous Emission Monitoring Requirements

- Removed the phrase "and the traceability protocols of Appendix H" from Condition 4.1.1.2, since Appendix H of the current version of 40 CFR Part 75 is "reserved". Note that Condition 4.1.1.2 specifies that the NO_X continuous emission monitoring systems are subject to the requirements of 40 CFR Part 75 and that would include any applicable appendices, regardless of whether or not they are specifically called out in this condition.

- Condition 4.1.1.2.a and 4.1.1.2.b were removed. The basis for including these requirements in both the construction permit and original Title V permit is not clear.

However, based on discussions with the Division's Field Services Unit, the source should be permitted to use either the percent or ppm standards, as specified in 40 CFR Part 75. Therefore, these requirements have been removed from the permit.

- Condition 4.3 (data replacement requirements) was removed from the permit. The Division's Field Service's Unit considers that this requirement is not necessary; therefore it has been removed from the permit. Note that the source is still required to follow the monitoring requirements in 40 CFR Part 75 for purposes of the Acid Rain program (Section III of the permit) and as such are required to replace data as specified in 40 CFR Part 75 for purpose of reporting emission data for that program.

Section III – Acid Rain Requirements

- Changed the designated representative and alternate designated representative according to the information in EPA's database.

- Revised the table to include calendar years corresponding to the relevant permit term for the renewal.

- Minor changes were made to the standard requirements, based on changes made to 40 CFR Part 72 § 72.9.

- Added a requirement to Section 4, specifying that changes to the DR and ADR shall be made according to 40 CFR Part 72 § 72.23.

- Removed the requirement to submit the annual compliance certification in Section 4 (Reporting Requirements). As a result of revisions to the Acid Rain Program made with the Clean Air Interstate Rule (final published in the federal register on May 12, 2005), annual compliance certifications are no longer required, beginning in 2006.

Section IV – Permit Shield

- The citation for the permit shield has been revised to make corrections (Part C, Section XIII, should be XIII.B), to reflect revisions and restructuring of Reg 3 and to remove Reg 3, Part C, Section V.C.1.b and C.R.S. § 25-7-111(2)(I) since they don't address the permit shield.

- The permit shield for streamlined conditions (Section 3) was revised to make the following corrections

    - In the first line, second column in the table, the phrase "including exemptions in §§ 60.332(f) and (i)" was removed since these exemptions would only apply to units that use water or steam-injection.
    - In the first line, second column in the table, the NO_X limit indicated in brackets was corrected (the NO_X limit is 114 ppmvd, rather than 75 ppmvd).
    - In the third line, first column "Condition 4.4" was replaced with "Condition 4.3" due to renumbering with the removal of the data replacement requirements.

- The permit shield for streamlined conditions (Section 3) was revised to address changes to NSPS GG (final revisions published in the federal register on July 8, 2004). To that end, the following revisions were made:

    - In the second line, second column of the table, the citation for § 60.334(b) was replaced with § 60.334(h)(3) and the references to §§ 60.335(d) & (e) were removed. The description in the brackets was changed to indicate the requirement is to monitor the sulfur content of the fuel. In addition, in the third line, first column, only Section II, Condition 1.10 is indicated.
    - In the third line, second column of the table, the citation for § 60.334(c)(1) was replaced with § 60.334(j)(1)(iii). The description in the brackets was change to indicate the requirement is NO_X excess emission reporting.
    - The fourth line was removed. Excess emission reporting is only required if a source is required to monitor the sulfur content of the fuel. Sources using natural gas as fuel are not required to monitor the sulfur content of the fuel.

Section IV – General Conditions

- The upset requirements in the Common Provisions Regulation (general condition 3.d) were revised December 15, 2006 (effective March 7, 2007) and the revisions were included in the permit. Note that these provisions are state-only enforceable until approved by EPA into Colorado's state implementation plan (SIP).

- Replaced the reference to "upset" in Condition 5 (emergency provisions) and 21 (prompt deviation reporting) with "malfunction".

- General Condition No. 21 (prompt deviation reporting) was revised to include the definition of prompt in 40 CFR Part 71.

- Replaced the phrase "enhanced monitoring" with "compliance assurance monitoring" in General Condition No. 22.d.

Appendices

- Appendix B and C were replaced with latest version.

- Changed the mailing address for EPA in Appendix D. Removed the Acid Rain addresses in Appendix D, since annual certification is no longer required and submittal of quarterly reports/certifications is done electronically.

Total Facility HAP Emissions (tons/yr)

Emission Unit	acetaldehyde	acrolein	BTEX	formaldehyde	chloroform	Hexane	HCL	HF	Mercury	Metals	Total
Manchief Equipment (01OPMR236)											
Turbine 1	0.243	0.0389	1.25	4.32							5.85
Turbine 2	0.243	0.0389	1.25	4.32							5.85
Starter Engine	1.24E-04	3.89E-05	6.17E-03	3.89E-04							6.72E-03
Heater			2.14E-04	2.92E-03		7.01E-02				1.79E-04	7.34E-02
PSCo Pawnee Equipment (96OPMR129)											
Main boiler							20.3	53.65	0.18	0.55	74.68
Auxiliary boiler			1.62E-03	4.28E-02		6.36E-01				4.25E-02	0.72
Cooling Tower					2.6						2.60
Facility Total	**0.49**	**0.08**	**2.51**	**8.69**	**2.60**	**0.71**	**20.30**	**53.65**	**0.18**	**0.59**	**89.79**

Manchief Generating Station: HAPS are based on AP-42 emission factors and permitted fuel consumption limits

PSCo Pawnee: HAPS are based on the following. Auxiliary boiler: AP-42 emission factors and permitted fuel consumption limit. Note that at permitted fuel limits for both fuels, hours of operation would exceed 8760 hrs/yr, so an adjusted fuel limit for No. 2 fuel oil was used. Cooling Tower: permitted VOC emission limits all VOC assumed to be chloroform. Main Boiler: Metals are based on AP-42 emission factors and permitted fuel consumption limit (99.5% control assumed for baghouse), HCl and HF based on emission factors determined using emissions and fuel consumption reported on APENS (using 2007, 2006 and 2004 data), and mercury emissions from average projected emissions used to support development of Colorado Mercury Rule.